

COMPLETED IMPACT ASSESSMENT QUESTIONNAIRES  
on  
TECHNICAL ASSISTANCE GRANTS TO IIMI  
funded by the  
ASIAN DEVELOPMENT BANK  
1985-89

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International Irrigation Management Institute  
Colombo, Sri Lanka  
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# 4521

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## INTRODUCTION AND EXECUTIVE SUMMARY

This report, contains the responses to the questionnaires prepared by the Asian Development Bank (see Annex I) to assess the impact of the Technical Assistance grants to IIMI which were funded by the Asian Development Bank during 1985-89. The questionnaires have been completed by the leaders of each project funded by ADB Technical Assistance grants, under the supervision of IIMI's Directors and Director General.

The responses to the impact assessment questionnaires have been prepared at the request of the Asian Development Bank, as part of a broader assessment conducted by the Bank of the impact of its Technical Assistance grants to IIMI and other international agricultural research centers in Asia. The study will systematically assess the Bank's record of assistance to date, and provide guidelines for a forthcoming paper to be prepared by ADB staff.

Between 1985 and 1989, the Asian Development Bank made 10 Technical Assistance grants to IIMI for a total of over \$3 million (see Annex II). All but one of the 10 Technical Assistance grants awarded to IIMI during 1985-89 are included in this report. TA No. 5136 for the initial establishment and operation of IIMI is not included in this report since the grant was designed to 'provide overall unrestricted support to the Institute. TAs 654 - PHI and 859 - PHI, and 673 - IND and 937 - IND, were merged for the purpose of this report since they deal with Phases I and II of an essentially continuous Technical Assistance grant. TA Nos. 5172 and 5209 were similarly merged, since they deal with a regional study and a follow-up seminar on a common subject. RETA 5273 was split into three parts, since this TA had three separate activities, with separate objectives and terms of reference.

The questionnaire responses clearly demonstrate that the Bank's Technical Assistance grants to IIMI have had a vital impact on the Institute's efforts to develop and disseminate methods to improve irrigation management in Asia. In particular, ADB grants have fostered strong cooperation between IIMI and its client and partner agencies in the various countries in which ADB projects have been conducted. Equally, the ADB approach has ensured that tangible and useful outputs were produced; as a consequence, a disproportionate share of the most important of IIMI's research outputs in the period 1985-89 have been funded through ADB Technical Assistance grants.

The report, contains detailed answers to each of the questions included in the questionnaire, with the exceptions of questions I.5 and II.5, which are generic rather than TA specific in nature. Our overall views on these two questions are as follows:

I.5 Are there any proposals for improvement of programming of the ADB assistance to the Center?

As stated earlier, major benefits of the set of ADB TA grants to IIMI have been the impetus to undertake collaborative and problem-solving research. In some cases however, the ADB's "project" mode of funding has constrained IIMI's goal of maintaining the long term institutional presence in selected countries needed to allow IIMI to participate in sustained collaborative research based on IIMI's and its partner national agencies familiarity with the host environments and institutions. These long term relationships are vital to the achievement of IIMI's overall mission. In addition, the project mode of funding has sometimes prevented IIMI from exploring the full set of research issues that have arisen during project, implementation, because specific items go beyond the terms of reference of the given project.

We suggest that ADB consider a programming mechanism that would allow IIMI to maintain the current, strong emphasis on collaboration, outputs and results, while providing sufficient flexibility for institutional continuity and capacity to explore important follow-up issues. Such a mechanism might include an annual program review and planning meeting involving senior staff of the Bank and of IIMI, at which three-year forward plans could be reviewed and up-dated.

II.5 What have been the comments of TAC/CGIAR (in their program and management reviews) on the various activities supported through Bank Technical Assistance?

No formal program and management reviews of IIMI have been conducted by TAC/CGIAR to date. However, as the Bank is aware, an External Review of the Institute, commissioned by IIMI's Support Group, is currently underway. The report of this Review will be presented to the IIMI Board of Governors at its meeting at the end of this month. In addition, the Technical Advisory Committee of the CGIAR conducted a Fact Finding Review of IIMI in April of 1989; The report of this review does not however contain specific comments on Bank assisted activities.

Title : STUDY ON IRRIGATION MANAGEMENT FOR DIVERSIFIED CROPS (PHILIPPINES)

Number: 654 and 859 PHI (Phases I and II)

I. Selection of the Technical Assistance (TA) Proposal

1. Was the proposal suggested by the Institute/Bank/Others?: The proposal was suggested by the Institute and endorsed by the collaborating or partner government agency, the National Irrigation Administration (NIA).
2. a) Was the proposal formulated by Staff of the Institute/Bank/Others?: The proposal was formulated by the staff of the Institute.  
b) If both, what skills did the Bank/the Institute contribute?:
  - i) Economic:
  - ii) Technical:
  - iii) Institutional:
  - iv) Socio-economic:
  - v) Other:

Does not arise
3. Does the proposal conform with
  - a) the Bank's 3-point policy?: Yes
  - b) the Institutes's mandate?: The proposal conforms with the Institute's mandate.
4. Was the proposal submitted to other donors?: The proposal was not submitted to other donors.
5. Are there any proposals for improvement of programming of the ADB assistance to the Center?
6. Why was the Bank asked to be a donor?: The Bank was asked to be a donor since it was interested and willing to support the objectives and output of the proposal at that time.
7. Is the project a "self-contained area of investigation, with a specified objective which terminates when its specific objective has been achieved"?: The project was a "self-contained area of investigation".
8. Is a specific project modality effective?
  - a) Does it serve its purpose?
  - b) If not, what are the disadvantages?

The specific project nodality was effective only as far as providing results to the specified objectives. However, it did not totally serve its purpose in the sense that there were other issues that could not be taken up under the project's TOR,

9. Was the project fully Financed by the Bank? Other sources?: The project was not fully Funded by the Bank, The other sources were IIMI and NIA.
10. Would the project have been undertaken without Bank assistance?: The project would not have been undertaken without Bank assistance.

## II. Scope of Work and Budget of the TA

1. Was the scope of work relevant to the TA objectives and the Terms of Reference (TOR) adequate to achieve the objectives?: The scope of work was relevant and adequate to attain the objectives.
2. Was the implementation period adequate/too short/too long?: The implementation period was not adequate in terms of providing sufficient time to have in-depth analysis and write-up of the results.
3. Were the budget resources adequate?: The budget resources were not adequate, and had to be supplemented by IIMI.
4. Was auditing undertaken?: Auditing was undertaken by IIMI headquarters office.
5. What have been the comments to TAC/CGIAR (in their program and management reviews) on the various activities supported through Bank Technical Assistance?:
6. Was staffing met by the Institute or was it extra?: Staffing was met by the Institute.

## III. DMC and ADB Involvement

1. Was the cooperation extended by the relevant Government agencies adequate?: Relevant Government agencies extended adequate support and cooperation.
2. Was local expertise tapped?: Local expertise was tapped whenever possible (See V.1.b. below).
3. Was donor (ADB) involvement in TA implementation adequate/inadequate?: Donor involvement was adequate.

4. How does ADB involvement compare with other agencies?: ADB involvement ~~was~~ greater than that of other donor agencies.
5. What were the problems met (constraints imposed)?: The IIMI project leader frequently felt that he was treated as a "consultant" to the Bank, rather than as a member of the IIMI international staff.
6. Was there sufficient flexibility in ADB involvement?: More flexibility would have been desirable.

#### IV. Content and Quality of Work

1. Was the TOR complied with? If not completely, to what extent?:  
The TOR was complied with substantially.
2. Was the specified reporting undertaken and was it of good quality?:  
The specified reporting was undertaken and of good quality.
3. Were there any innovative approaches taken under the TA?: There were innovations in the approaches, viz., the joint actual participation of NIA and Department of Agriculture field staff in the testing and demonstration of the production of irrigated corn in one of the sites; the development and testing of system-wide operational procedures for irrigating non-rice crops in the dry season, and the development of a computer-aided mapping program and training of NIA staff on its use and other applications.

#### V. Impact Assessment and Usefulness of TA Activities

1. What were the main accomplishments?:
  - a) In relation to the objectives set forth in the TA document:
    - \* The development of a low cost and effective methodology for identifying parts of the command suitable for diversified cropping (non-rice) in the dry season.
    - \* Demonstration of the capability of existing rice gravity systems to irrigate non-rice crops in the dry season. However, this capability can still be improved through provision of effective operation and management procedures to attain equity and reliability of water supply to the farmers. Coupled with these procedures are changes or modifications in the design of irrigation and drainage facilities.
    - \* Identified the socio-economic and technical constraints and ways to reduce the constraints necessary to promote irrigated diversified cropping in the dry season.

- \* Developed and field tested a set of guidelines for the effective operation and management of existing irrigation systems for diversified cropping in the dry season.
- \* Provided recommendations on the potential irrigation investments where irrigated diversified cropping will most likely be productive (around 80,000ha).

b) Other accomplishments:

- i) Scientific advancement:
- ii) Publications:
- iii) Practical usefulness or application:
- iv) Beneficiaries/trainees (quantity):
- v) Contribution to institutional development of NARC's by IIMI:
- vi) others:
- \* The results of the studies provided additional information on the irrigation of non-rice crops in humid tropical environment.
- \* The studies resulted in two publications: 1) The State-of-the-Art on Water Management for Diversified Cropping on Rice-based Systems in the Philippines; and 2) Proceedings of the National Workshop on Irrigation Management **for** Diversified Cropping.
- \* The results of the studies can be used by NIA in operating their systems more effectively in the dry season. The guidelines will be used as reference for the establishment **of** a Manual of Irrigation Systems Operation for Diversified Cropping. The publication and use of this manual **is** one of the objectives **of** an on-going project (Diversified Cropping Irrigation Engineering Project) supported by the Japan International Cooperating Agency (JICA) and NIA. Furthermore, this set of guidelines will also be the reference for the publication of the "Philippines Recommends for Diversifying Wetland Areas". This is a publication of the Philippines Council for Agriculture, Forestry and Natural Resources Research and Development (PCARRD) that, caters to irrigation managers, researchers, extension workers and farmers.
- \* The studies were also able to provide professional development capability to research staff of 4 state colleges and universities (Central Luzon State University, Mariano Marcos State University, University of Southern Mindanao and the Pampanga Agricultural College) by providing and **supervising study grants**. The study grants dealt with the component research issues



2. Were the findings disseminated adequately?: The findings will be disseminated adequately.
3. What were the uses of the results to

ii) extension workers: The results indicating the needs of farmers in the production of non-rice crops in the dry season will be useful for extension workers. This will

4. Make an assessment of the impact of the TA:

- a) Intermediary impact, such as adoption of recommended practices, institutional reforms, etc.: In the short term, the impact of the TA is in terms of providing the Bank and NIA with design modifications (irrigation procedures and facilities) for existing irrigation systems to effectively irrigate non-rice crops in the dry season.
- b) Final impact on agricultural production in terms of quality and quantity.: In the long term, the TA will provide an indication of the alternatives in optimizing scarce water resources in the dry season.

5. What are the views of the DMCs in regard to the impact and usefulness of the TA?: This question is not applicable at the moment,

## VI. Forward Plans

1. Did the TA activities lead to the need for further work?:
  - a) Further investigations or studies: The NIA and the Bank agreed to pilot test the results of the TA. A pilot testing activity will be implemented before a nation-wide application of the results will be undertaken.
  - b) Institutional strengthening requirements: The institutional strengthening will be in terms of training that this pilot activity will undertake, which will involve not only the NIA field staff but the farmers as well through the Irrigators Associations.
  - c) Implementation assistance: The tentative implementation assistance will be in terms of an existing project loan (Balog-Balog Multipurpose Project) and another TA from the Bank which will be piggy-backed to the ISIP loan.
  - d) Others:
2. What actions are envisaged to fulfil such needs?: This will be determined at the basis of the pilot testing and training program.
3. Was/Is a Phase II/Extension of the TA envisaged?: The next phase of piloting was not envisaged. However, due to the significant results generated by the TA, a follow-up TA to assist in the pilot testing is the next logical step in making use of the results.

Title : EFFICIENT IRRIGATION MANAGEMENT AND SYSTEM TRANSFER (INDONESIA)

Number: 673 and 937 - INO (Phases I and II)

I. Selection of the Technical Assistance (TA) Proposal

1. Was the proposal suggested by the Institute/Bank/Others?: By the Institute and the Government of Indonesia (GOI),
2. a) Was the proposal formulated by Staff of the Institute/Bank/Others?: Formulated by the Institute in consultation with GOI,  
b) If both, what skills did the Bank/the Institute contribute?:
  - i) Economic:
  - ii) Technical:
  - iii) Institutional:
  - iv) Socio-economic:
  - v) Other:

Does not arise
3. Does the proposal conform with
  - a) the Bank's 3-point policy?: Yes
  - b) the Institutes's mandate?: Yes
4. Was the proposal submitted to other donors?: No
5. Are there any proposals for improvement of programming of the ADB assistance to the Center?:
6. Why was the Bank asked to be a donor?: Because it was concurrently funding the Third Irrigation Sub-Sector Loan to the GOI specifically aimed at O&M improvements and system turnover.
7. Is the project a "self-contained area of investigation, with a specified objective which terminates when its specific objective has been achieved"?: Yes
8. Is a specific project modality effective?:
  - a) Does it serve its purpose?: Yes, although there are some disadvantages (see below).
  - b) If not, what are the disadvantages?: It does not provide for the longer term continuity required to make changes in operational policies. The time frame is adequate for making operational changes, but a longer time frame is needed for adjustments to policy and operational procedures.

9. Was the project fully financed by the Bank? Other sources?: No. Both Phase I and Phase II required additional sources of funding. For Phase II, the Bank contributed \$600,000, the Ford Foundation \$300,000, IIMI \$70,000, and GOI in-kind contributions worth \$54,000.
10. Would the project have been undertaken without Bank assistance?:  
No

## II. Scope of Work and Budget of the TA

1. Was the scope of work relevant to the TA objectives and the Terms of Reference (TOR) adequate to achieve the objectives?: Yes
2. Was the implementation period adequate/too short/too long?:  
Adequate for short-term objectives but inadequate for institutional development.
3. Were the budget resources adequate?: Yes
4. Was auditing undertaken?: Yes
5. What have been the comments to TAC/CGIAR (in their program and management reviews) on the various activities supported through Bank Technical Assistance?:
6. Was staffing met by the Institute or was it extra?: By IIMI

## III. DMC and ADB Involvement

1. Was the cooperation extended by the relevant Government agencies adequate?: Yes
2. Was local expertise tapped?: Yes, through the use of both counterpart staff of Public Works and hiring of qualified professionals.
3. Was donor (ADB) involvement in TA implementation adequate/- inadequate?: ADB involvement was generally not sufficient. The TA was supervised directly from Manila rather than through the Jakarta office which is responsible for the parallel activities funded through the sector loan. The visits from ADB staff in Manila were too infrequent and too short to enable a proper set of mid-term discussions that would have facilitated mid-term changes to make the TA more effective.,
4. How does ADB involvement compare with other agencies?: Generally at a lower level of involvement, but, with continued full support. for the objectives and implementation of the TA that meant, unlike

other agencies, there was no problem with overall project continuity.

5. What were the problems met (constraints imposed)?: The final approval process by AD13 for Phase II was too slow, so that alternative funding had to be found in order to maintain continuity from the previous TA. This delay was merely administrative insofar as the TA had been approved in technical terms well before the previous TA came to a close. This had later financial implications.
6. Was there sufficient flexibility in ADB involvement?: No. The budgeting procedures that distinguish between foreign and local costs caused great problems in Phase II. The delay in final approval of financing meant that the foreign exchange component only was available for 20 months, not 24, and there was no willingness on the part of ADR Lo allow foreign costs to be converted to local costs. The result was that money had to be returned to AD5 but IIMI had to finance local cost overruns out of its own funds. The budget split, also precluded the hiring of sufficient Indonesian professionals leaving too much supervision with the IIMI expatriate staff.

#### IV. Content and Quality of Work

1. Was the TOR complied with? If not completely, to what extent?:  
The TOR was fully met.
2. Was the specified reporting undertaken and was it of good quality?:  
The specified reporting (Inception Report, Interim Report and Final Report) were completed more or less on schedule. There have been positive responses from ADB and the Government of Indonesia on the quality of all reports.
3. Were there any innovative approaches taken under the TA?: The main purpose of the TA was to develop innovative ways in improving O & M procedures of the Government of Indonesia using low cost and simple methodologies that were capable of being implemented within the current budget structure. This represented a major deviation from most O & M improvements that are too expensive to sustain under normal financing by the Government.

#### V. Impact Assessment and Usefulness of TA Activities

1. What were the main accomplishments?:
  - a) In relation to the objectives set forth in the TA document: Getting the Government to recognize that there are significant gaps between target and actual performance, and that there are simple and cost-effective ways to modify information and

operational procedures to make more effective use of current staff and financial resources.

b) Other accomplishments:

- i) Scientific advancement: Development of simplified procedures for data collection, monitoring and evaluation, system operation, seasonal and annual planning that meet existing objectives more efficiently and more manageably than before.
- ii) Publications: Final Report to ADB, Ford Foundation and the Government of Indonesia, plus a number of already published papers. Additional papers will be prepared by IIMI after the completion of the TA.
- iii) Practical usefulness or application: The entire focus of the TA was to develop and pilot test practical procedures, and this was accomplished.
- iv) Beneficiaries/trainees (quantity): In Phase II, direct training of 25 field staff in three provinces was undertaken, plus indirect and intermittent training of another 20 national and provincial level staff.
- v) Contribution to institutional development of NARC's by IIMI: Institutional development of Public Works is the long term aim of IIMI's involvement in Indonesia, although so far the time frame has not been sufficient to permit the changes made so far to be sustained.
- vi) Others:

2. Were the findings disseminated adequately?: Generally sufficient. Following each report meetings were held at national and provincial level to discuss findings and recommendations; and reports were circulated to a wider audience. However, given the large number of provinces and the distances involved it is probably true to say that some provinces are not aware of changes already made in the provinces where the project was undertaken. Although this is nominally the government's responsibility, it is unlikely they would do this without additional support from IIMI and others.

3. What were the uses of the results to

- i) other research workers: Should be significant but it is too early to assess.
- ii) extension workers: High utility for provincial staff of Public Works.
- iii) farmers: Indirectly, if recommendations are adopted and maintained.
- iv) DMCs: Issues raised apply to many other DMC, particularly where O&M funding is reduced for the irrigation sector, and where pressures for increased production still exist.
- v) the Bank (operational significance): The Bank may find the results useful in planning O&M assistance programs

Lo other countries, although the procedures developed are intended to be low-cost and not require external financing.

4. Make an assessment of the impact of the TA:

- a) Intermediary impact, such as adoption of recommended practices, institutional reforms, etc.:
- b) Final impact on agricultural production in terms of quality and quantity.:

5. What are the views of the DMCs in regard to the impact and usefulness of the TA?: Following several days of discussions at both provincial and national level following the presentation of the Phase II Final Report, it is clear that the recommendations are considered highly useful by Public Works. There were few adverse comments, except in terms of presentation and terminology, and the overall response has been to implement all recommendations that can be done without financial expense, and develop a plan for implementation of others in a phased period of several years.

VI. Forward Plans

1. Did the TA activities lead to the need for further work?:

- a) Further investigations or studies:
- b) Institutional strengthening requirements:
- c) Implementation assistance:
- d) Others:

The Phase II TA was already an extension of the ADB supported TA for Phase I. It covered further investigations, institutional strengthening and implementation assistance.

2. What actions are envisaged to fulfil such needs?: A further TA, already approved in principle by ADB, aims at long-term support for an institutional basis to be created in Public Works For irrigation management that would provide opportunities for further field studies, cooperation with national research institutes, information base establishment, training, and development of national policies for irrigation management. This center has been proposed by Public Works as a direct response to the two TAs supported by ADB, and had specifically requested IFM to assist in the conceptualization and initiation of the Center.

3. Was/ls a Phase II/Extension of the TA envisaged?: A third TA was planned for and initial commitments obtained from ADB and Ford Foundation to finance it over a three year period. Although this has temporarily been delayed for reasons unrelated to the TAs already undertaken, such work will commence as soon as possible.



Title : STUDY OF IRRIGATION MANAGEMENT AND CROP DIVERSIFICATION (SRI LANKA)

Number: 846 SRI

I. Selection of the Technical Assistance (TA) Proposal

1. Was the proposal submitted by the Institute/Bank/Others?: IIMI

2. a) Was the proposal formulated by Staff of the Institute/Bank/Others?: IIMI staff

b) If both, what skills did the Bank/the Institute contribute?:

- i) Economic:
- ii) Technical:
- iii) Institutional:
- iv) Socio-economic:
- v) Other:

Not applicable

3. Does the proposal conform with

a) the Bank's 3-point policy?: Yes

b) the Institutes's mandate?: Yes

4. Was the proposal submitted to other donors?: No

5. Are there any proposals for improvement of programming of the ADB assistance to the Center?:

6. Why was the Bank asked to be a donor?: IIMI was interested in initiating research in Southern Sri Lanka, as part of its plans. In fact a little work was begun in October 1986 with IIMI's core funds. ADB had expressed interest in supporting IIMI's work in the South since it is financing the zone's largest projects there. So there was a convergence of interests.

7. Is the project a "self-contained area of investigation, with a specified objective which terminates when its specific objective has been achieved"?: Yes

8. Is a specific project modality effective?: Yes, in that it disciplines the researcher to plan carefully and report regularly.

a) Does it serve its purpose?: Yes

b) If not, what are the disadvantages?:

9. Was the project fully financed by the Bank? Other sources?: No. The Bank did not pay IIMI in direct costs and insisted on an IIMI contribution. Also IIMI budgeted at too low a rate for international staff time. Therefore, the total project costs were met, approximately, 75% by the Bank and 25% by IIMI.
10. Would the project have been undertaken without Bank assistance?:  
No

## II. Scope of Work and Budget of the TA

1. Was the scope of work relevant to the TA objectives and the Terms of Reference (TOR) adequate to achieve the objectives?: Adequate
2. Was the implementation period adequate/too short/too long?: Yes
3. Were the budget resources adequate?: No (see above)
4. Was auditing undertaken?: Yes
5. What have been the comments to TAC/CGIAR (in their program and management reviews) on the various activities supported through Bank Technical Assistance?:
6. Was staffing met by the Institute or was it extra?: Met by the Institute

## 111. DMC and ADB Involvement

1. Was the cooperation extended by the relevant Government agencies adequate?: Yes. The co-operation extended by relevant Government Agencies was fairly adequate. However, there are certain activities which are beyond the scope and ambition of implementation by agencies; nothing could be done under such cases. (Note - they did all we asked, and assisted greatly - but in the next phase we should strive for a more intimate involvement).
2. Was local expertise tapped?: Yes. The Research Associate, the Research Officers (5 Nos), the Field Assistants (4 Nos) and the Consultant to crop diversification are all local people who have been intimately involved in the project. The Department of Agriculture, the ID, the IMD and the MEA were all kept informed and involved in the work. The Research Associate is on a secondment to IIMI from the Irrigation Department; we will go back to his parent Department after completing the project.
3. Was donor (ADB) involvement in TA implementation adequate./- inadequate?: ADB involvement in the project was adequate. Their involvement, especially in the Study Advisory Committee, was very useful. (Note - in the first 18 months of the study, ADB sent

review missions to oversee its investments in the system (not our study) but failed to contact IIMJ, keep IIMJ informed, or oversee insights).

4. How does ADB involvement compare with other agencies?: ADR involvement compares satisfactorily with other agencies.
5. What were the problems met (constraints imposed)?:
  1. The project sites selected for the research (Uda Walawe and Kirindi Oya) were both situated in a region where subversive activities are intense, with the result that implementation of the project by agencies involved could not be carried out, as per the schedule. Research staff could not be in the field for many days because of security reasons and had to be called back to headquarters.
  2. Communications were very difficult. The vehicle purchased under the ADB loan was burnt down by the subversives.
  3. Kirindi Oya is a water starved system. During yala 1988, there was not enough water in the reservoir to raise yala crops.
6. Was there sufficient flexibility in ADB involvement?: Yes. ADB staff have agreed to consider extension of the project, for two more months (April and May 1990) at no cost increase, for including the data collected during the maha 1989/90.

#### IV. Content and Quality of Work

1. Was the TOR complied with? If not completely, to what extent?:  
The TOR was complied with, except for the following:
  - a) Political and security problems reduced the number of full seasons of water delivery data, and reduced our ability to do sample surveys of farmers.
  - b) Delays in the Walawe rehabilitation made monitoring the performance of a rehabilitated canal impossible to complete fully (partial monitoring was done on one small distributary).
  - c) Delays in completing the Weerawila Agricultural Research Station, and, a deployment of staff by the Agriculture Department prevented our doing the monitoring of on-farm trials of diversified crops to the extent, expected.
  - d) Lack of water in the reservoir reduced the number of seasons monitored at Kirindi Oya.

2. Was the specified reporting undertaken and was it of good quality?: The specified reporting was undertaken as per the schedule of the inception report. The quality of reporting was **good**. There were a number of discussions while presenting and discussing the report at the Study Co-ordinating Committee meeting (SCC), at the project level and the Study Advisory Committee meeting (SAC) at the Agency/Government level. Some of the suggestions made in the report have already been taken up for possible implementation.
3. Were there any innovative approaches taken under the TA?: No

#### V. Impact Assessment and Usefulness of TA Activities

1. What were the main accomplishments?:
  - a) In relation to the objectives set forth in the TA document: In relation to the objectives set forth in the TA, at project level, it was brought out that the Uda Walawe rehabilitation project is mainly construction oriented with insufficient integrated planning, and inflexible and rigid design executed with inadequate co-ordination among the various implementing agency staff. The rehabilitation process has not been used as a vehicle to build farmers organizations. As a result of IIMI's report, a meeting chaired by the Director-General, MASL and attended by ADB and other parties was held in July 1989 to review IIMI's findings. It has been decided that a Workshop will be organized jointly by MFA, IIMI and CECB officials on post-rehabilitation work and crop diversification. It was agreed that progress review meetings will be held monthly by the Project Director, Embilipitiya and quarterly by Senior Management in Colombo. A Sub-Committee was constituted to review the O & M Manual prepared by Sir M. MacDonald and Partners. More recently, after changes in project management personnel, IIMI's findings have been accepted and project level staff have drafted proposals for solving some of the major problems.

In Kirindi Oya, given the pressure of construction targets to be achieved, the Irrigation Department found it necessary to concentrate on construction, and O & M received much less attention. The important objective of achieving crop diversification is constrained by a number of factors notably labor shortage for other OFCs, non-availability of ready market, credit and crop insurance. As a result of IIMI's research reports, in Kirindi Oya project an action committee with all relevant departments including IIMI has been constituted to prepare an implementation plan for the cultivation of OFCs commencing in 1990. Also, a separate O&M division under the Senior Irrigation Engineer has been created to improve water delivery.

## b) Other accomplishments:

## i) Scientific advancement:

- a) Careful measurements of design parameters have been carried out and they are **used** in analyzing the design and management interactions.
- b) A new procedure of analysis - Rotational water supply data (RWS) over shorter intervals has been introduced.

## ii) Publications,:

- a) An Inception Report - comprising findings of the literature review and details of the research plan was presented to the Government and the Bank in March 1988.
- b) A Progress Report containing the preliminary results of the first season field research was submitted in October 1988.
- c) An Interim Report at the end of two seasons of research was submitted in April 1989.
- d) The preliminary results of the third season (yala 1989) was reported in a Seasonal Summary Report.
- e) A draft Final Report containing the synthesis of all the results of four seasons' research will be submitted for review in January 1990.
- f) The Final Report to be presented in May 1990 will present all the results and recommendations for improvements taking into considerations, the comments received on the Draft Final Report. (Note: IIMI would like to publish a country paper based on the final report, but the resources in the TA may not be sufficient).

iii) Practical usefulness or application: There has been a marked change in the attitude of the operating Agencies, consultants and construction agencies, after going through the reports produced by IIMI. Already one can see a visible change in implementing some of the concepts and ideas put forward in the various reports.

iv) Beneficiaries/trainees (quantity): About a dozen people of the local researches were involved directly in the project implementation. In addition, an engineer from Mahaweli Economic Agency was co-opted in implementing the project at Uda Walawe.

v) Contribution to institutional development of NARC's by IIMI: At Weerawila, an Agricultural Research station was established to carry out research on water management for diversified crops at the farm level. IIMI had helped in designing and implementing the farm layout, and the research program to target it on key practical issues in the project.

vi) Others:

- > Distribution canal efficiency of 71% against: assumed in the design of 93%.
- > Seepage and percolation values of 4 to 10mm in Kirindi Oya and 14 to 17mm in Uda Walawe against 3 to 5mm assumed in the design.

2. Were the findings disseminated adequately?: To some extent through reports, study projects, co-ordinating committees and study advisory committee and through Workshops. Since the project is not finished, dissemination is also on-going.

3. What were the uses of the results to

- i) other research workers: The methodology adopted in this research project can be followed by other researchers. The data accumulated in the project can be used for various analysis by other research workers.
- ii) extension workers: The procedure developed for institutional development will help the extension workers to use some of these concepts in their day to day work.
- iii) farmers: Our observations of the causes of weaknesses in present efforts to organize farmers, and recommendations for improvement, could greatly enhance farmers' role in and influence over management. Also, our crop and water management recommendations for Kirindi Oya could raise farmer incomes (if adopted) by 2-3 times.
- iv) DMCs: The Rahk can use some of the data of this project such as design parameters in their pre-appraisal reports of similar projects.
- v) the Bank (operational significance): If our recommendations, especially on design of irrigation modernization projects, are accepted and implemented, the Bank would have far more useful and effective investments than at present.

4. Make an assessment of the impact of the TA:

- a) Intermediary impact, such as adoption of recommended practices, institutional reforms, etc.: This is an on-going project. The first phase of this TA is to carry out a diagnostic analysis of various constraints including arrangement difficulties that these two projects face. These constraints and the likely solutions, where possible, have been passed on to the implementing agencies and the Government. During the second phase of the study, well defined, implementable and practical solutions emerging out of the recommendations will be field tested.
- b) Final impact on agricultural production in terms of quality and quantity.: In the long term, impact of the TA would aim

at pinpointing the deficiencies in planning, implementing and operating the system possible solutions to some of the questions raised, would be useful for implementation. With reference to the systems studied, the findings would be of use in improving management, and therefore performance, of both major systems in the long run.

5. What are the views of the DMCs in regard to the impact and usefulness of the TA?: This is an ongoing project. The final report will be ready by end of May 1990. Only then the report will be circulated and views will be obtained.

At the study Advisory Committee meetings and in other forums, officials indicate many of our findings are useful, and some recommendations have been adopted. They are very positive about going ahead with Phase II.

We suggest interviewing key people to get their views after our Final Draft Report is submitted.

## VI. Forward Plans

1. Did the TA activities lead to the need for further work?:
  - a) Further investigations or studies: Yrs. Seepage and percolation assumptions, hydrological studies of Kirindi Oyn, studies of crop mix in Kirindi Oya, study of operational procedures at both systems.
  - b) Institutional strengthening requirements: Yes. For farmer organizations, O&M divisions, project overall management.
  - c) Implementation assistance: Yes. To implement institutional strengthening,
  - d) Others:
2. What actions are envisaged to fulfil such needs?
3. Was/Is a Phase II/Extension of the TA envisaged?: A phase II action research TA is envisioned to address some of the issues raised above and to test specific possible solutions. However, the security situation is a big problem which may make phase II problematic.

Title : REGIONAL STUDY ON IRRIGATION SERVICE FEES; REGIONAL SEMINAR ON IRRIGATION FEES

Number: RETA 5172

I. Selection of the Technical Assistance (TA) Proposal

1. Was the proposal suggested by the Institute/Bank/Others?: The proposal was suggested by the Bank.
2. a) Was the proposal formulated by Staff of the Institute/Bank/Others?: Originally formulated by staff of the Bank. Modified considerably by IIMI staff in consultation with the Bank.  
  
b) If both, what skills did the Bank/the Institute contribute?:
  - i) Economic:
  - ii) Technical:
  - iii) Institutional:
  - iv) Socio-economic:
  - v) Other:

Not applicable.
3. Does the proposal conform with
  - a) the Bank's 3-point policy?:
  - b) the Institutes's mandate?:

Conforms with both the Bank's 3-point policy and IIMI's mandate.
4. Was the proposal submitted to other donors?: No
5. Are there any proposals for improvement of programming of the ADB assistance to the Center?:
6. Why was the Bank asked to be a donor?: The Bank has had an ongoing interest in policies and procedures regarding the financing of irrigation systems in Asia and cost recovery from beneficiaries of systems. The Bank requested IIMI to undertake the study and to participate in the seminar as the primary resource and cosponsor.
7. Is the project a "self-contained area of investigation, with a specified objective which terminates when its specific objective has been achieved"?: Yes
8. Is a specific project modality effective?:
  - n) Does it serve its purpose?: Yes